

a passive control for changing the flow rate setting of the valve in response to a received external control signal.

15. (Amended) An implantable medical pump, comprising:

a fluid reservoir;

a multi-stable valve having multiple states for providing a plurality of flow rates of fluid from the fluid reservoir;

a flow restrictor operatively coupled to the multi-stable valve for regulating the flow rate of fluid from the fluid reservoir; and

a passive control for changing the flow rate setting of the multi-stable valve in response to a received external control signal.

NEW CLAIMS:

Please add the following new claims 33-60:

33. (New) The implantable medical pump of claim 9, further comprising a receiver for receiving the control signal via telemetry from an external device, wherein the control signal provides instruction to adjust the flow rate of the fluid from a first flow rate to a second flow rate.

34. (New) The implantable medical pump of claim 9, wherein the passive control is powered by the external control signal.

35. (New) The implantable medical pump of claim 15, further comprising a receiver for receiving the control signal via telemetry from an external device, wherein the control signal provides instruction to adjust the flow rate of the fluid from a first flow rate to a second flow rate.

36. (New) The implantable medical pump of claim 15, wherein the passive control is powered by the external control signal.

37. (New) The implantable medical pump of claim 21, further comprising a receiver for receiving the control signal via telemetry from an external device, wherein the control signal provides instruction to adjust the flow rate of the fluid from a first flow rate to a second flow rate.

38. (New) The implantable medical pump of claim 21, wherein the passive control is powered by the external control signal.

39. (New) The implantable medical pump of claim 27, further comprising a receiver for receiving the control signal via telemetry from an external device, wherein the control signal provides instruction to adjust the flow rate of the fluid from a first flow rate to a second flow rate.

40. (New) The implantable medical pump of claim 27, wherein the passive control is powered by the external control signal.

41. (New) An implantable medical pump comprising in combination:
a fluid reservoir;
a passive regulator assembly for controlling a flow rate of fluid from the fluid reservoir;
a receiver for receiving a control signal via telemetry from an external device, wherein the control signal provides instruction to adjust the flow rate of the fluid from a first flow rate to a second flow rate; and
a control responsive to the control signal for adjusting the passive regulator assembly to cause a change in the flow rate.

42. (New) The implantable medical pump of claim 41, further comprising an external power source for providing power to various components in the implantable medical pump.

43. (New) The implantable medical pump of claim 41, further comprising an external power source for providing power to the implantable medical pump necessary to adjust the flow rate.

44. (New) The implantable medical pump of claim 41 wherein the implantable medical pump is a passive device that is capable of delivery of drug to the patient without an internal power supply.

45. (New) The implantable medical pump of claim 41 wherein the control is an electromechanical control.

46. (New) The implantable medical pump of claim 41 wherein the control is a passive control powered by an external power supply.

47. (New) The implantable medical pump of claim 41 wherein the control signal is a radio frequency signal.

48. (New) The implantable medical pump of claim 41 wherein the control signal is received from a programmer.

49. (New) The implantable medical pump of claim 41 further comprising a first sensor for measuring the flow rate.

50. (New) The implantable medical pump of claim 41 further comprising a second sensor for measuring a volume of fluid in the fluid reservoir.

51. (New) The implantable medical pump of claim 41 wherein the passive regulator assembly comprises at least one valve.

52. (New) The implantable medical pump of claim 51 wherein the valve is a bi-stable valve.

53. (New) The implantable medical pump of claim 51 wherein the valve is a multi-stable valve.

54. (New) The implantable medical pump of claim 51 wherein the valve is a shape-memory valve.

55. (New) The implantable medical pump of claim 51 wherein the valve is a bi-metallic valve.

56. (New) The implantable medical pump of claim 51 wherein the valve is a micromachined valve.

57. (New) The implantable medical pump of claim 41 wherein the passive regulator assembly comprises at least one restrictor.

58. (New) The implantable medical pump of claim 41 wherein the passive regulator assembly comprises at least one restrictor and at least one valve operatively coupled to the restrictor.

59. (New) The implantable medical pump of claim 41 wherein the control is an electromechanical control.